

# Improving the Peer Mentoring Experience through Evaluation

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## Abstract

*Peer mentoring programs are designed to address problems experienced by new students to assist them in making the transition to university study. The University of New South Wales offers such a program to new undergraduate students. Feedback on the program is obtained from participants through questionnaires and is used to identify problems and to elicit suggestions for program improvement. The study examines the effectiveness of improvements to the program as a result of evaluation feedback. Findings show that improvements to program content and delivery result in better outcomes for mentees but that administrative problems still need to be addressed.*

Peer mentoring programs are now widely used in universities and colleges to assist beginning students to make a successful transition into their courses of study. They are conducted at both the undergraduate (Hall, 2004; Hedges & Mania-Farnell, 2002; Muldoon & Godwin, 2003; Rodger & Tremblay, 2002; Stevens & Crase, 2003) and graduate levels (Fugate, Jaramillo & Preuhs, 2001; Grant-Vallone & Ensher, 2000; Waldeck et. al., 1997) as well as for special categories of students, such as those from ethnic minority backgrounds (Pope, 2002).

Many of these programs involve using senior students as mentors. The use of peers as mentors rather than faculty or counselling staff aims to provide a more supportive environment for addressing transitional problems, such as dealing with stress (Jacobi, 1991); accessing services and resources on campus; understanding requirements (Rodger & Tremblay, 2002); making social contacts (Pope & Van Dyke, 2004); and identifying with the institution (Evans & Peel, 1999; Hall, 2004).

Evidence of the effectiveness of these programs has been documented (e.g. Drew et. al., 2000, Hall, 2004), but few studies have sought to identify

implementation problems and strategies for improving delivery. In view of the widespread use of peer mentoring programs, research is needed on the features that make them successful. The purpose of this paper is to identify, through evaluation feedback, those components of the program that are successful and to ascertain where deficiencies exist so that new components can be devised to address these deficiencies. Through this process an exemplary peer-mentoring program can be developed that addresses the needs of students new to university study and helps reduce the high attrition levels among this group.

## **Background**

The program at the University of New South Wales has been in operation since 2002 and comprises a set of separate faculty or school-based sub-programs coordinated by the University Counselling Service. New first year undergraduates in selected courses are invited to join a peer-mentoring program for the first two to eight weeks (depending on the particular school/faculty) of their first semester at university. Those who accept the invitation are assigned to a small group of from four to eight mentees under the guidance of a mentor recruited from senior students within the same school or faculty. The mentors complete a one-day training course conducted by Counsellors from the University Counselling Service.

Each sub-program is coordinated by a course or school coordinator. In 2004, there were 27 separate sub-programs across the university; in 2005, there were 24 such programs. Further details of the program are described in Glaser, Hall and Halperin (2006) and Hall (2004).

The main aim of this study is to ascertain the extent to which addressing problems identified by participants results in improvements in subsequent deliveries of the program as perceived by the mentees.

Gaining feedback from participants on the problems they have experienced and on their suggestions for improvement is an integral part of formative evaluation (Patton, 1997; Weiss, 1998). This feedback identifies those areas of program delivery perceived by the participants to be hindering success, and it provides program administrators with a valuable source of information from which ideas for program improvement can be generated.

The source for the problems with the program and recommendations for improvement is the feedback obtained from previous years (Hall, 2004). This information was gathered in three ways: from questionnaires completed in 2004 by mentors and mentees, from interviews with a selection of mentees, and through meetings with groups of mentors. Problems identified were classified into those relating to program organization and administration, those relating to content of the program, and those relating to the personal qualities of the mentors.

Organizational and administrative problems included scheduling of meetings with mentors, size of mentoring groups, and communication with mentees. Areas where improvements had been suggested concerning the

content of the program included a greater focus on helping mentees adjust to teaching styles, helping them to understand the requirements of the university, and including more social functions involving the whole cohort of mentees. Problems with the personal qualities of the mentors included their lack of knowledge about the university generally; their lack of knowledge of the degree programs undertaken by mentees; and, in some cases, a lack of friendliness.

Because the program coordinators have the responsibility for offering the program to students within their school or degree course, it is necessary to work closely with these coordinators to achieve program improvements. There is, however, a large turnover of these coordinators because the role is allocated by the school or faculty and is not recognized as any particular staff member's responsibility. It is usually allocated to a member of the administrative staff rather than the teaching staff. So although feedback on evaluation findings is provided to all coordinators, there appears to be little attempt at implementing improvements in most of the programs. A survey of all coordinators on changes to their mentoring programs in 2005 identified only minor changes in all except the Arts and Social Science program.

The strategy adopted, then, was to work closely with the coordinator of the largest peer-mentoring program, namely the Arts and Social Sciences program. Through her cooperation, most of the recommendations from the 2004 evaluation were implemented in the 2005 program. These included improved scheduling arrangements for meetings with mentees, briefing of mentors about the problems reported by mentees in previous years, preparation of additional resource kits to provide mentors with strategies for conducting meetings with their mentees, and providing more opportunities for mentors to combine with other mentors to organize joint activities and social occasions.

Implementing changes in one program enabled comparison with those programs where little or no change had been made. These programs formed a de facto control group to determine the effectiveness of the improvements made in the Arts and Social Sciences program. This study reports the findings from the 2005 Arts and Social Sciences peer-mentoring program in comparison with other programs in 2005 and in 2004.

## **Method**

Questionnaires were distributed to mentees and mentors in as many of the programs as was practicable. Because not all coordinators distributed the questionnaires, data was obtained from 12 programs in 2004 and 15 in 2005.

The actual method of administration varied from program to program, depending on the coordinator. In some programs, emails were sent to both mentees and mentors, while in others, random samples of mentees were telephoned. The questionnaires were administered in the week following completion of the program.

The mentee questionnaire in 2004 was completed by 438 mentees across 12 of the 27 programs offered that year; in 2005, it was completed by 359 mentees across 15 of the 24 program offerings. Response rate varied from program to program and averaged 66%. The questionnaire sought information from mentees in the following areas:

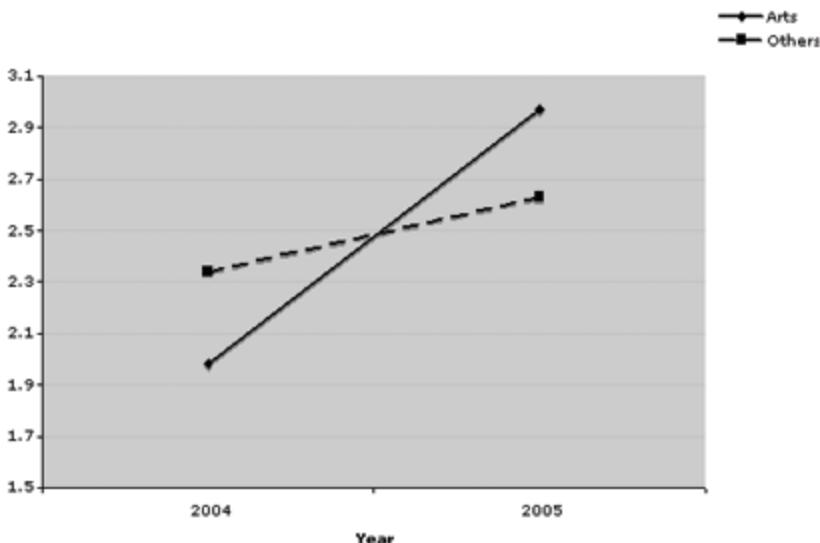
1. Whether discontinuation or deferment was being considered and, if so, what impact the mentoring program had on their decision to stay.
2. Use made of the mentoring program.
3. Helpfulness of the mentoring program and the mentor.
4. Problems encountered with the mentoring program.
5. Suggestions for improving the program.

The questionnaire was developed from earlier versions in which open-ended questions were included on problems experienced and areas in which the program had been helpful (Hall, 2004). Detailed coding of responses to these questions identified recurring themes and led to them being rewritten as closed questions in the present questionnaire.

## Results

The focus of the analysis will be on comparison of the Arts and Social Sciences Program with the other programs because it is in this program that the most extensive modifications were made based on feedback from the 2004 evaluation.

Mentees rated the extent to which they made use of the mentoring program on a 5-point scale reflecting increasing levels of use. As a first test of the effect of improvements to the Arts and Social Sciences program, mean ratings for 2005 were compared with those for 2004 in both the Arts and Social Science program and in all other programs combined. If program improvements in the Arts and Social Sciences program are effective, then this should show up in improvements in program use. That is, mentees who believe that the program is providing them with the assistance they need should make greater use of it than those who do not. Figure 1 shows the mean rating of program use by mentees in 2004 and 2005. Mentees rated their use of the program on a five-point scale from little or no use (1) to extensive use (5).



*Figure 1: Mean ratings of use of peer mentoring program for 2004 and 2005. Ratings were on a five-point scale from 1 (little or no use) to 5 (extensive use).*

A two-way analysis of variance with program (Arts vs. others) and Year (2004 vs. 2005) as the main effects found that use of the Arts and Social Science program by mentees showed a much greater increase than that of all other programs combined ( $F_{1,738} = 9.59, p = .002$  for the interaction term). Overall use increased from 2004 to 2005 ( $F_{1,738} = 31.93, p = .000$ ) while overall program main effects showed no significant differences.

Mentees also rated helpfulness of the program overall and in the main areas covered by the program, as well as helpfulness of their mentor. The ratings were made on a five-point scale reflecting increasing levels of helpfulness.

The percentage of mentees rating the program helpful for each of these areas is shown in Table 1 together with results of the significance tests for the overall change from 2004 to 2005 and the change for the arts program and other programs separately.

Table 1 shows that for every measure of helpfulness, there is an improvement from 2004 to 2005 for the arts program, and in every case, this improvement is greater than that for the other programs. The improvement for the arts program is statistically significant at the .05 level in four of the eight areas and in none of them for the other programs. These areas are as follows: help navigating around the university, help with teaching style, help with social contacts, and overall help from the mentoring program.

Table 1

*Percentage of mentees rating the mentoring program helpful overall and in each of the various areas addressed by the program.*

Area of Helpfulness	Program				Significance of Effects <sup>a</sup>		
	Arts		Other		Year	Arts	Other
	2004	2005	2004	2005			
Overall ratings of helpfulness:							
Helpfulness of the mentoring program overall	38.9	62.7	45.5	47.7	.070	.013	.664
Helpfulness of the mentor	54.3	70.5	55.3	60.4	.115	.213	.523
Ratings of helpfulness in specific areas:							
Finding my way around the university	38.9	48.5	26.4	30.7	.003	.017	.281
Help with teaching style	54.3	26.9	12.3	18.1	.015	.010	.487
Help with social contacts	21.6	42.0	31.4	30.9	.340	.047	.834
Help access university services	29.7	43.3	18.7	29.9	.000	.317	.050
Help feel part of university community	32.4	42.1	30.3	30.2	.629	.165	.915
Help in understanding university requirements	35.1	47.5	30.0	35.7	.106	.095	.663

<sup>a</sup>Significance levels for chi-square tests of the relationship between rated helpfulness and year overall (first column), for Arts mentees (second column) and other mentees (third column).

Mentees were also asked to identify the problems they experienced with the program by responding to questions about the problems most often encountered, such as communications with mentor, scheduling clashes, and issues being neglected. Table 2 shows the percentage of mentees reporting which of these problems they had experienced with the mentoring program along with the results of the chi-square significance tests of the change in these responses overall and in the arts and other programs separately.

Table 2 shows that mentees reported a reduction in three of the four problem areas in the arts program and all four in the other programs, although this reduction was significant in only two of the areas. Only one of these areas—frequency of communications with mentor—was the reduction significant for the arts program and not for the other programs.

Another measure of overall effectiveness of the mentoring program is provided by the responses to the question concerning the impact of the program on the decision by students considering discontinuing or deferring their study at the university. Table 3 shows the percentage of students rating this impact as considerable (4 or 5 on a five-point scale) for arts and other mentees for each of the years 2004 and 2005. Also shown are the

significance levels for chi-square tests of the relationships between year and ratings separately for arts and other programs and the contingency coefficient as a measure of the strength of the relationship.

Table 2

*Percentage of mentees responding yes to questions concerning problems they experienced with the mentoring program.*

Area of Helpfulness	Program				Significance of Effects <sup>a</sup>		
	Arts		Other		Year	Arts	Other
	2004	2005	2004	2005			
Finding my way around the university	41.9	31.3	22.4	14.1	.062	.212	.021
Help in understanding university requirements	25.8	10.7	21.9	17.0	.011	.017	.196
Help feel part of	27.4	8.0	15.2	8.3	.001	.001	.023
Help in understanding university requirements	12.9	15.2	20.8	17.0	.283	.854	.317

<sup>a</sup>Significance levels for tests of difference between proportion of mentees endorsing each statement in 2004 compared to 2005 overall (first column), for Arts mentees (second column), and other mentees (third column).

Table 3

*Percentage of mentees reporting that the mentoring program made a great deal of impact on their decision to stay at university.*

Program				Significance of Effects <sup>a</sup>			Contingency Coefficient <sup>b</sup>	
Arts		Other		Year	Arts	Other	Arts	Other
2004	2005	2004	2005				Arts	Other
4.5	11.1	3.3	2.9	.002	.016	.056	.445	.261

<sup>a</sup>Significance level for chi-square test of the relationship between ratings of impact and year for all mentees and separately for arts and others.

<sup>b</sup>Measure of the strength of the relationship between rated impact and year.

Although the percentages in Table 3 show that the mentoring program had a great deal of impact on mentees' decision to stay at university, the

increase in this percentage for the arts program is quite large and significant. The program need only be responsible for one student deciding to continue at university for it to pay for itself many times over.

Analysis of the mentee's responses in 2005 to the open-ended question soliciting comments and suggestions on the program revealed ongoing administrative problems with scheduling, attendance at meetings, and communication with mentors in both the arts and other programs. Few comments were made on the actual content of the programs. Those that were made focused on the need to prepare students for various styles of teaching at university. This was the lowest rated area of helpfulness of the program (see Table 1). One Arts and Social Science mentee commented, "I think preparing students to handle the workload and university styles of learning should be a major focus of the mentoring program." However, the overwhelming majority of comments were favourable about the program, the mentor, or both. For instance, the following arts mentee comment represents the majority of comments: "*I thought the program was truly amazing! I loved my mentor. He became a good friend of the group and helped us in a time of need. I definitely feel peer-mentoring needs to be continued for many years to come.*"

## Discussion

The focus of this study was on the impact of improvements to the delivery of peer mentoring programs for first year undergraduate students. Feedback from evaluation of the 2004 programs was provided to coordinators of the 2005 programs, but substantial changes were implemented in only one of those programs, namely the Arts and Social Science program.

These changes focused on both administrative and content areas of the program. The key administrative problems were scheduling of meetings and communications with mentors. Mentees had commented that meetings with their mentor(s) often clashed with their classes and that in some instances mentors had not contacted them about the program. These problems were addressed by (a) providing all mentees details of meeting times of mentoring groups and giving them the opportunity to change to an alternative group at a more convenient meeting time, and (b) providing mentors with an office phone to enable them to contact their mentees.

Content problems that had been identified from previous studies included lack of attention to university requirements and teaching styles as well as insufficient opportunities to meet other students in a social context. These problems were addressed by providing additional training sessions for mentors in the Arts and Social Science program. These sessions explored strategies for helping mentees adjust to university study, including some strategies on how to help mentees cope with differences between university and high school. There were also suggestions for mentors on possible ways to organize social occasions in combination with other mentoring groups to provide greater opportunities for social contacts with mentees.

These training sessions were in addition to those that had already been undertaken by mentors in all programs. This university-wide training program, provided by the University Counselling Service, focused on

responsibilities of the mentor that included ethical issues but dealt minimally with program content. No other program coordinators provided additional training sessions for their mentors.

### *Implications*

The findings from this study show that adding the extra training for mentors in the Arts and Social Science program and improving administrative arrangements result in better ratings of the program by mentees in comparison with mentees in other programs. Arts and Social Science mentees also reported experiencing fewer problems with the program and were more likely to report that the program helped them in their decision to continue at university rather than to discontinue or defer.

While administrative arrangements such as communication, scheduling and meeting facilities are important preconditions for the success of a peer-mentoring program, it is the program content that will be the determining factor in program success. A well-organized program that does not meet the needs of mentees is not going to produce helpful outcomes for them.

### *Further Research*

The present study has sought to identify some of these needs and devise strategies in the mentoring program for addressing them. The strategies that have contributed most to the improved outcomes (as shown in Table 1) include helping mentees find their way around the university campus, adjust to teaching styles, and make social contacts. These content areas seem to be important ingredients in a successful peer-mentoring program. There is, however, further room for improvements as helpfulness ratings in most areas are still below 50%.

Above all, having a sympathetic and friendly mentor appears to be a crucial ingredient in the success of the program, as many mentees have commented as is evidenced by the high rating of helpfulness of the mentor shown in Table 1.

Although program revisions have addressed many of the problem areas, there still remain problems of clashes of mentoring meetings with classes and communication with mentees as shown in Table 2. Further improvements will need to address these problems as well as the need to find more innovative ways to deliver the program content. One strategy being considered is to set up a web site for the mentoring program to enable mentors and mentees to communicate on-line. This will enable mentees not able to attend meetings to post their questions and have them answered by their mentors on-line.

### **Conclusion**

If peer-mentoring programs are to be expanded in universities and colleges, detailed studies need to be conducted to determine the effectiveness of these programs and to identify those features contributing to their success. This study has made a start in this process by showing that including guidance on approaching university study, help on locating campus resources and facilitating social contacts with other students, and

improvement of the mentoring experience of first year students. Further research should focus on identifying further areas helpful to mentees and on the personal qualities of mentors that contribute to a successful mentoring outcome.

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